

IN THE CLAIMS

Please amend claims 1-25, cancel claims 57-59, and add new claim 121, as follows:

R12  
1. (Currently Amended) A plug, comprising:

a first base bearing a keyway providing a first electrical conductor and an orifice spaced-apart from and separated by a mass of said plug from said keyway;

a second base separated by an axial length of said plug from said first base, said second base ~~bearing means for supporting~~ disposed to support a cam, said mass being perforated by a plurality of radially oriented apertures forming an array;

an exterior surface extending between and engaging said first base and said second base;

a sidebar positioned between said first base and said second base to reciprocate between a first location with said sidebar simultaneously engaging said plug and a cylinder surrounding said plug, and a second location releasing said plug for ~~rotation~~ relative to movement between the cylinder and said plug;

a locking ~~means~~ mechanism disposed within said apertures to ~~reciprocate~~ move relative to said plug in response to a key inserted into said keyway to accommodate reciprocation of said sidebar relative to said plug and rotation of said plug relative to the cylinder when the key while inserted into said keyway engages in a selected relation with said locking ~~means~~ mechanism, and obstructing said reciprocation absent said selected relation;

a second electrical conductor terminating with an electrical contact exposed to an exterior of said first base through said orifice;

an electronic logic circuit borne by said plug while coupled to receive electrical power and data signals via said first and second electrical conductors, and generating control signals in dependence upon said electrical power and data signals; and

an electrical operator disposed within one of said apertures, said operator having a distal member travelling in dependence upon said control signals between a first position relative to said exterior surface ~~accommodating~~ obstructing said ~~reciprocation~~ relative movement by engaging a detent protruding from the cylinder, and a second and different position relative to said exterior surface ~~obstructing~~ accommodating said ~~reciprocation~~ relative movement.

5  
Contd.  
R12

2. (Currently Amended) The plug of claim 1, comprising said locking ~~means~~ mechanism,  
2 logic circuit and electrical operator simultaneously experiencing said rotation relative to the cylinder  
3 whenever said plug rotates relative to the cylinder.

1 3. (Currently Amended) The plug of claim 1, comprising said locking ~~means~~ mechanism,  
2 logic circuit and electrical operator being wholly within the cylinder and travelling with said plug  
3 whenever said plug moves relative to the cylinder.

1 4. (Currently Amended) The plug of claim 1, with said electrical operator maintaining said  
2 distal member within said plug with said distal member extended not beyond said exterior surface  
3 while said distal member is in said first position, and maintaining said ~~sidebar~~ distal member in  
4 concurrent engagement with said plug and with the ~~cylinder~~ detent while said distal member is in

5 said ~~second~~ first position.

1 5. (Currently Amended) The plug of claim 1, with said electrical operator maintaining said  
2 distal member within said plug with said distal member extending not beyond said exterior surface  
3 while said distal member is in said first position, and moving said distal member radially between  
4 ~~said first position inside~~ relative to said exterior surface ~~and said second position radially beyond~~  
5 ~~said exterior surface~~, in dependence upon said control signals.

6. (Currently Amended) A lock, comprising:

2 a cylinder containing a hollow recess defining a longitudinal axis and a stationary  
3 detent extending from said cylinder,

4 a plug bearing a plurality of open radially oriented apertures forming an array, said  
5 plug being rotatable around said longitudinal axis while resident within said hollow recess, said plug  
6 comprising:

7 a first base bearing a keyway providing a first electrical conductor and an  
8 orifice spaced-apart from and separated by a mass of said plug from said keyway;

9 a second base separated by an axial length of said plug from said first base,  
10 said second base ~~bearing means for supporting~~ disposed to support a cam;

11 an exterior surface extending between and engaging said first base and said  
12 second base;

13 a sidebar positioned between said first base and said second base to

14 ~~reciprocate between a first location with said sidebar simultaneously engaging said plug and said~~  
15 ~~cylinder surrounding said plug, and a second location releasing said plug for rotation relative~~ create  
16 an obstruction to the relative movement between said cylinder and said plug;

17 a locking device disposed within said apertures to ~~reciprocate relative to said cylinder~~  
18 ~~in response to a key inserted into said keyway to accommodate reciprocation of said sidebar relative~~  
19 ~~to said plug and relative to said cylinder~~ release and obstruction when the key while inserted into said  
20 keyway engages in a selected relation with said locking means, and ~~obstructing to maintain~~ said  
21 ~~reciprocation~~ obstruction absent said selected relation;

22 a second electrical conductor terminating with an electrical contact exposed to an  
23 exterior of said first base through said orifice;

24 an electronic logic circuit borne by said plug, coupled to receive electrical [power  
25 and] data signals via said first and second electrical conductors, and generating control signals in  
26 dependence upon said electrical power and data signals; and

27 an electrical operator borne by said plug, disposed within one of said apertures, said  
28 operator having a distal member radially traveling along an axis transverse to said longitudinal axis,  
29 in dependence upon said control signals between a first position relative to said exterior surface  
30 accommodating by engaging said detent and thereby obstructing said reciprocation movement in  
31 concert with said locking device and a second and different position relative to said exterior surface  
32 ~~obstructing~~ accommodating said ~~reciprocation in concert with said locking device~~ movement.

1 7. (Currently Amended) The plug of claim 6, comprising said locking device, logic circuit

2 and electrical operator simultaneously experiencing said rotation relative to the cylinder whenever  
3 said plug rotates relative to the cylinder.

1 8. (Currently Amended) The plug of claim 6, comprising said locking device, logic circuit  
2 and electrical operator being wholly within the cylinder and travelling with said plug whenever said  
3 plug moves relative to the cylinder.

9. (Currently Amended) The plug of claim 6, with said electrical operator maintaining said  
distal member within said plug with said distal member extended not beyond said exterior surface  
3 while said distal member is in said ~~first~~ second position, and maintaining said distal member in  
4 engagement with ~~the cylinder~~ said detent while said distal member is in said ~~second~~ first position.

10. (Currently Amended) The plug of claim 6, with said electrical operator maintaining said  
distal member within said plug with said distal member extending not beyond said exterior surface  
3 while said distal member is in said first position, ~~and moving said distal member radially between~~  
4 ~~said first position inside said exterior surface and said second position radially beyond said exterior~~  
5 ~~surface, in dependence upon said control signals.~~

1 11. (Currently Amended) A lock, comprising:  
2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface, said shell bearing a detent extending into said shell;

4 a plug rotatable around said longitudinal axis while resident within said hollow  
5 recess, and a bar interposed between said shell and said plug to ~~reciprocate~~ generally along a radial  
6 plane ~~between a first position~~ engaging both said shell and said plug while obstructing rotation of  
7 said plug within said recess, ~~and a second position accommodating said rotation~~, said plug  
8 comprising:

9 a first base ~~bearing a keyway~~ providing a first electrical conductor ~~and an~~  
10 ~~orifice spaced apart from and separated by a mass of said plug from said keyway~~;

11 a second base separated by an axial length of said plug from said first base;  
12 ~~said second base bearing means for supporting a cam~~;

13 an exterior surface extending between and engaging said first base and said  
14 second base;

15 a locking device responsive to a key inserted into said keyway to  
16 ~~accommodate reciprocation of said bar between said first position and said second position~~  
17 accommodating relative movement between said shell and said plug when the key while  
18 inserted into said keyway engages in a selected relation with said locking device and  
19 obstructing said ~~reciprocation~~ relative movement absent said selected relation;

20 a second electrical conductor terminating with an electrical contact exposed  
21 to an exterior of said first base through said orifice;

22 an electronic logic circuit coupled to receive electrical ~~power and~~ data signals  
23 via said first and second electrical conductors, and generating control signals in dependence  
24 upon said ~~electrical power and~~ data signals; and

25 an electrical operator having a distal member ~~radially reciprocating along~~  
26 moving relative to an axis transverse to said longitudinal axis said detent, in dependence  
27 upon said control signals between a first orientation relative to said exterior surface enabling  
28 said ~~reciprocation~~ relative movement and a second and different orientation relative to said  
29 exterior surface obstructing said ~~reciprocation~~ relative movement when said distal member  
30 at least partially surrounds said distal member.

12. (Currently Amended) The plug of claim 1, further comprised of said:

1  
2 electrical operator comprising an electrical coil coaxially aligned with said distal  
3 member, to move said distal member between said second position and said first position in response  
4 to said control signals; and  
5 said distal member bearing a circumferential surface blocking said ~~reciprocation~~ relative  
6 movement while said distal member is in said second position, and a variation in said circumferential  
7 surface accommodating said ~~reciprocation~~ relative movement while said distal member is in said first  
8 position.

13. (Currently Amended) The plug of claim 6, further comprised of said:

2 electrical operator comprising an electrical coil coaxially aligned with said distal  
3 member, to move said distal member between said second position and said first position in response  
4 to said control signals; and  
5 distal member bearing a circumferential surface ~~blocking said radial movement of~~

6 engaging said ~~sidebar~~ detent while said distal member is in said second position, and a variation in  
7 said circumferential surface accommodating said ~~reciprocation~~ relative movement while said distal  
8 member is in said first position.

1 14. (Currently Amended) A lock, comprising:

2 a cylinder containing a hollow interior recess defining a longitudinal axis, and bearing  
3 a slot within said recess; and

4 a plug rotatable from a rest orientation around said longitudinal axis while resident  
5 within said hollow recess relative to said cylinder; and

6 a ~~bar~~ stationary detent positioned between said first end and second end while  
7 extending into said slot, and providing simultaneous engagement of said cylinder and said plug while  
8 said cylinder remains in said rest orientation;

9 said plug comprising:

10 a first base bearing a ~~keyway~~ an opening accommodating insertion of a key  
11 and providing a first electrical conductor ~~and an orifice spaced apart from and separated by~~  
12 ~~a mass of said plug from said keyway,~~

13 a second base separated by an axial length of said plug from said first base,  
14 said second base disposed to support a cam, said mass being perforated by a ~~radially oriented~~  
15 an aperture;

16 an exterior surface extending between said first base and said second base;  
17 retaining means oriented to retain a shank of a key inserted into said ~~keyway~~

18 opening while said plug remains in an orientation other than said rest orientation relative to  
19 said cylinder, and to accommodate withdrawal of the key from said ~~keyway~~ opening while  
20 said plug is in said rest orientation;

21 a second electrical conductor terminating with an electrical contact exposed  
22 to an exterior of said first base through said orifice;

23 an electronic logic circuit comprising a memory storing a code, said circuit  
24 being borne by said plug and coupled to receive electrical ~~power and~~ data signals via said  
25 first and second electrical conductors, said circuit generating control signals in dependence  
26 upon correspondence between said code and information borne by said data signals; and

27 an electrical operator borne by said plug, said operator having a distal member  
28 travelling in dependence upon said control signals between a first position relative to said  
29 exterior surface maintaining ~~said simultaneous~~ engagement of said detent and a second and  
30 different position relative to said exterior surface accommodating movement between said  
31 plug and said cylinder.

1 15. (Currently Amended) The lock of claim 14, further comprising:

2 said ~~bar~~ detent ~~comprising a sidebar positioned between said first base and said~~  
3 ~~second base to reciprocate between a first location while providing said said simultaneous~~  
4 ~~engagement, and a second location releasing said plug for rotation relative to~~ being borne by said  
5 cylinder; and

6 said distal member being oriented within said plug to move relative to said plug to

7 accommodate ~~reciprocation of said sidebar relative to said plug and~~ rotation of said plug from said  
8 rest orientation relative to the cylinder when a key while inserted into said keyway opening generates  
9 said data signals representing information having a selected said correspondence with said code, and  
10 obstructing said ~~reciprocation~~ rotation absent said selected correspondence.

1 16. (Currently Amended) The lock of claim 14, further comprising:

2 said ~~bar~~ detent comprising an arm arcuately engaging said cylinder and a ~~detent~~ tooth  
3 extending from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to said plug to  
5 accommodate passage of said ~~detent~~ tooth relative to said distal member during rotation of said plug  
6 from said rest orientation relative to the cylinder when a key while inserted into said keyway opening  
7 generates said data signals representing information having a selected said correspondence with said  
8 code, and obstructing said rotation of said plug from said rest orientation by engaging said ~~detent~~  
9 tooth absent said selected correspondence.

1 17. (Currently Amended) The lock of claim 14, further comprising:

2 said ~~bar~~ detent comprising an arm arcuately engaging said cylinder and a ~~detent~~ tooth  
3 extending from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to said plug to  
5 accommodate passage of said ~~detent~~ tooth relative to said distal member during rotation of said plug  
6 from said rest orientation relative to the cylinder when a key while inserted into said keyway opening

7 generates said data signals representing information having a selected said correspondence with said  
8 code, obstructing said rotation of said plug from said rest orientation by engaging said ~~detent~~ tooth  
9 absent said selected correspondence, and accommodating passage of said ~~detent~~ tooth relative to said  
10 distal member during rotation of said plug from an orientation other than said rest orientation to said  
11 rest orientation.

1 18. (Currently Amended) The lock of claim 14, further comprising:

2 said ~~bar~~ detent comprising an arm arcuately engaging said cylinder and a ~~detent~~ tooth  
3 extending from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to said plug to  
5 accommodate passage of said ~~detent~~ tooth relative to said distal member during rotation of said plug  
6 from said rest orientation relative to the cylinder when a key while inserted into said ~~keyway~~ opening  
7 generates said data signals representing information having a selected said correspondence with said  
8 code, and obstructing said rotation of said plug from said rest orientation by engaging said ~~detent~~  
9 tooth absent said selected correspondence when said rotation is in a first direction, and  
10 accommodating said rotation of said plug from said rest orientation despite an absence of said  
11 selected correspondence when said rotation is in a second and opposite direction.

1 19. (Currently Amended) The lock of claim 14, further comprising:

2 said ~~bar~~ detent comprising an arm arcuately engaging said cylinder and a ~~detent~~ tooth  
3 extending from said arm and through said slot; and

4           said distal member being oriented within said plug in an engagement of said ~~detent~~  
5 tooth to obstruct said rotation of said plug from said rest orientation, and to move relative to said  
6 plug from said engagement of said ~~detent~~ tooth obstructing said rotation of said plug from said rest  
7 orientation to an accommodation of passage of said ~~detent~~ tooth relative to said distal member during  
8 rotation of said plug from said rest orientation relative to the cylinder when a key while inserted into  
9 said keyway opening generates said data signals representing information having a selected said  
10 correspondence with said code, and continuing said accommodation despite intermittent removal of  
the key from said keyway opening.

1           20. (Currently Amended) The lock of claim 14, further comprising:

2           said ~~bar~~ detent comprising an arm arcuately engaging said cylinder and a ~~detent~~ tooth  
3 extending from said arm and through said slot; and

4           said distal member being oriented within said plug in an engagement of said ~~detent~~  
5 tooth to obstruct said rotation of said plug from said rest orientation, and to move relative to said  
6 plug from said engagement of said ~~detent~~ tooth obstructing said rotation of said plug from said rest  
7 orientation to an accommodation of passage of said ~~detent~~ tooth relative to said distal member during  
8 rotation of said plug from said rest orientation relative to the cylinder when a key while inserted into  
9 said keyway generates said data signals representing information having a selected said  
10 correspondence with said code, and continuing said accommodation despite intermittent removal of  
11 the key from said keyway opening absent subsequent said generation of data signals representing  
12 information having said selected correspondence with said code.

1           21. (Currently Amended) The lock of claim 16, further comprising:

2                   a sidebar positioned between said first base and said second base to provide  
3       reciprocation between a first location with said sidebar providing simultaneous engagement with said  
4       plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;  
5       and

6                   said electrical operator comprising an electrical solenoid borne by said plug, said  
7       ~~solenoid having a distal~~ member comprising an armature travelling in dependence upon said control  
8       signals between a third position relative to said exterior surface maintaining said simultaneous  
9       engagement and a fourth and different position relative to said exterior surface accommodating said  
10      reciprocation.

1           22. (Currently Amended) The lock of claim 17, further comprising:

2                   a sidebar positioned between said first base and said second base to provide  
3       reciprocation between a first location with said sidebar providing simultaneous engagement with said  
4       plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;  
5       and

6                   said electrical operator comprising an electrical solenoid borne by said plug, said  
7       ~~solenoid having a distal~~ member comprising an armature travelling in dependence upon said control  
8       signals between a third position relative to said exterior surface maintaining said simultaneous  
9       engagement and a fourth and different position relative to said exterior surface accommodating said

10 reciprocation.

1 23. (Currently Amended) The lock of claim 18, further comprising:

2 a sidebar positioned between said first base and said second base to provide  
3 reciprocation between a first location with said sidebar providing simultaneous engagement with said  
4 plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;  
5 and

6 said electrical operator comprising an electrical solenoid borne by said plug, said  
7 ~~solenoid having a~~ distal member comprising an armature travelling in dependence upon said control  
8 signals between a third position relative to said exterior surface maintaining said simultaneous  
9 engagement and a fourth and different position relative to said exterior surface accommodating said  
10 reciprocation.

1 24. (Currently Amended) The lock of claim 19, further comprising:

2 a sidebar positioned between said first base and said second base to provide  
3 reciprocation between a first location with said sidebar providing simultaneous engagement with said  
4 plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;  
5 and

6 said electrical operator comprising an electrical solenoid borne by said plug, said  
7 ~~solenoid having a~~ member comprising an distal armature travelling in dependence upon said control  
8 signals between a third position relative to said exterior surface maintaining said simultaneous

9 engagement and a fourth and different position relative to said exterior surface accommodating said  
10 reciprocation.

1 25. (Currently Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess;

6 a stationary bar borne by said shell and interposed between said shell and said  
7 cylinder plug ~~to reciprocate generally along a radial plane between a first position engaging both said~~  
8 ~~shell and said plug while obstructing~~ to create an obstruction to rotation of said cylinder plug within  
9 said recess, ~~and a second position accommodating said rotation;~~

10 said cylinder plug comprising:

11 a first base and a second base separated by an axial length of said cylinder plug from  
12 said first base, said second base configured to support a cam; and

13 an electrical operator borne by said cylinder plug and rotatable with said cylinder  
14 plug, said electrical operator being electrically operable to respond to a control signal by  
15 moving independently of said bar ~~shell~~ between one of a first orientation accommodating  
16 relative movement between said bar shell and said cylinder plug and a second and different  
17 orientation ~~providing~~ maintaining obstruction of said bar relative movement by engaging said  
18 bar, and another of said first orientation and said second orientation.

1           26. **(Interference)** (Amended) The lock of claim 25, further comprised of:

2                   a logic circuit generating said control signal in response to a comparison between a  
3           code set within said logic circuit and a data signal applied to said logic circuit; and  
4                   said electrical operator moving between said second orientation and said first  
5           orientation in response to said control signal.

1           27. **(Interference)** (Amended) The lock of claim 25, further comprised of a key retainer  
2           maintaining a shank of a key within said cylinder plug during rotation of said cylinder plug relative  
3           to said shell.

1           28. **(Interference)** (Twice Amended) The lock of claim 27, further comprised of a locking  
2           mechanism borne by said cylinder plug, said cylinder plug being perforated by an aperture admitting  
3           reciprocal travel of a key relative to said locking mechanism, and said locking mechanism  
4           obstructing movement of said cylinder plug relative to said shell absent the key exhibiting a selected  
5           relation with said locking mechanism.

1           29. **(Interference)** (Twice Amended) The lock of claim 25, further comprised of a plurality  
2           of electrical conductors borne by said lock to engage a circuit in a key inserted into said cylinder  
3           plug.

1           30. **(Interference)** (Amended) The lock of claim 25, further comprised of a power source

to energize said electric operator, positioned to rotate with said cylinder plug relative to said shell.

31. **(Interference)** (Amended) The lock of claim 30, further comprised of said power source being mounted on a key.

32. **(Allowed)** (Twice Amended) The lock of claim 25, further comprised of a network of a plurality of cylinder plugs including said cylinder plug, and a switching device controlling operation of said network.

33. **(Allowed)** The lock of claim 32, with said switching device comprising a logic circuit.

34. **(Allowed)** The lock of claim 1, further comprised of said:  
electrical operator comprising an electrical coil moving said distal member, to reciprocate said distal member between said first position and said second position in response to said control signals; and  
said distal member bearing a circumferential surface blocking said radial movement of said sidebar while said distal member is in said second position, and accommodating said radial movement while said distal member is in said first position.

35. **(Allowed)** The lock of claim 6, further comprised of said:

electrical operator comprising an electrical coil moving said distal member, to

3 reciprocate said distal member between said first position and said second position in response to  
4 said control signals; and

5           said distal member bearing a circumferential surface blocking said radial movement  
6 of said sidebar while said distal member is in said second position, and accommodating said radial  
7 movement while said distal member is in said first position.

1           **36. (Allowed)** The lock of claim 16, further comprising said distal member bearing a mass  
2 engaging said detent and blocking said rotation while said distal member is in said first position, and  
3 a groove through said mass accommodating relative passage between said distal member relative to  
4 said detent while said distal member is in said second position.

1           **37. (Allowed)** The lock of claim 16, further comprising said distal member bearing a mass  
2 exhibiting a first height accommodating relative passage between said distal member relative to said  
3 detent while said distal member is in said second position, and a second and greater height engaging  
4 and blocking said rotation while said distal member is in said first position.

1           **38. (Allowed)** The lock of claim 16, further comprising said distal member bearing a mass  
2 having a periphery engaging said detent and blocking said rotation while said distal member is in  
3 said first position, and a central variation in said mass relative to said periphery accommodating  
4 relative passage between said distal member and said detent while said distal member is in said  
second position.

1           39. **(Interference)** (Twice Amended) The lock of claim 25, further comprising:

2                   a logic circuit generating said control signal in response to a comparison between a  
3       code set within said logic circuit and a data signal applied to said logic circuit;

4                   a conductor provided by said cylinder plug, conveying said data signal to said logic  
5       circuit; and

6                   said electrical operator moving from said second orientation to said first orientation  
7       in response to said control signal.

1           40. **(Interference)** The lock of claim 39, with said conductor comprising an electrical  
2       conductor.

1           41. **(Interference)** (Amended) The lock of claim 25, further comprising:

2                   a logic circuit borne by said cylinder plug, generating said control signal in response  
3       to a comparison between a code set within said logic circuit and a data signal applied to said logic  
4       circuit;

5                   a conductor borne by said cylinder plug, conveying said data signal to said logic  
6       circuit; and

7                   said electrical operator moving between said second orientation and said first  
8       orientation in response to said control signal.

1           42. **(Interference)** The lock of claim 41, with said conductor comprising an electrical  
2 conductor.

1           43. **(Non-elected)** (Twice Amended) A lock, comprising:  
2           a cylinder containing a hollow interior recess defining a longitudinal axis, and bearing  
3 a slot within said recess; and  
4           a cylinder plug rotatable from a rest orientation around said longitudinal axis while  
5 resident within said hollow recess relative to said cylinder; and  
6           an elongate member positioned between said cylinder and said cylinder plug, and  
7 while extending into said slot, preventing rotation between said cylinder and said cylinder plug by  
8 making a direct simultaneous engagement of said cylinder and said cylinder plug while said plug  
9 remains in said rest orientation and, in response to a torque that is externally applied to said cylinder  
10 plug and that causes said rotation of said cylinder plug within said shell, exiting said slot while  
11 maintaining a second simultaneous engagement of said cylinder and said cylinder plug that  
12 accommodates said rotation;  
13           said cylinder plug comprising:  
14           a first base bearing an orifice spaced-apart from and separated by a mass of  
15 said cylinder plug;  
16           a second base separated by an axial length of said cylinder plug from said first  
17 base, said second base disposed to support a cam, said mass being penetrated by a radially  
18 oriented aperture;

19 an exterior surface extending between said first base and said second base;  
20 a conductor having a terminal exposed to an exterior of said first base through  
21 said orifice;  
22 an electronic logic circuit comprising a memory storing a code, said circuit  
23 being borne by said cylinder plug and coupled to receive data signals via said conductor, said  
24 circuit generating control signals in dependence upon a comparison between said code and  
25 information borne by said data signal;  
26 an electrical operator mounted within said aperture, said operator having a  
27 movable member traveling in dependence upon said control signals between a first position  
28 relative to said exterior surface maintaining said simultaneous engagement by blocking  
29 movement of said elongated member from said direct simultaneous engagement and a second  
30 and different position relative to said exterior surface accommodating movement between  
31 said plug and said cylinder; and  
32 a component biasing said movable member to maintain said simultaneous  
33 engagement.

1 44. (Non-elected) The lock of claim 43, further comprising:  
2 said elongate member comprising a sidebar positioned between said first base and  
3 said second base to reciprocate between a first location while providing said simultaneous  
4 engagement, and a second location releasing said plug for rotation relative to said cylinder; and  
5 said movable member being oriented within said plug to move relative to said plug

6 to accommodate reciprocation of said sidebar relative to said plug and rotation of said plug from said  
7 rest orientation relative to the cylinder when a key while inserted into said plug generates said data  
8 signals representing information having a selected said comparison with said code, and obstructing  
9 said reciprocation absent said selected comparison.

1 45. **(Non-elected)** The lock of claim 43, further comprising:

2 said elongate member comprising an arm arcuately engaging said cylinder and a  
3 detent extending from said arm and through said slot; and

4 said movable member being oriented within said plug to move relative to said plug  
5 to accommodate passage of said detent relative to said movable member during rotation of said plug  
6 from said rest orientation relative to the cylinder when a key while inserted into said plug generates  
7 said data signals representing information having a selected said correspondence with said code, and  
8 obstructing said rotation of said plug from said rest orientation by engaging said detent absent said  
9 selected correspondence.

1 46. **(Interference)**(Twice Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess;

6 a bar borne by said plug and rotatable with said plug relative to said shell, said bar

being interposed between said shell and said cylinder plug to reciprocate generally along a radial plane between a first position engaging both said shell and said cylinder plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation, said cylinder plug comprising:

a first base and a second base separated by an axial length of said plug from said first base, said second base bearing means for supporting a cam; and

an electrical operator being electrically operable to respond to an electrical control signal by obstructing movement of said bar between said first position and said second position in response to a first state of said control signal and by moving within a second and different plane not coextensive with said radial plane in response to application of said control signal to accommodate said movement of said bar in response to a second and different state of said control signal.

47. **(Interference)** The lock of claim 46, further comprised of said operator directly obstructing movement of said bar between said first position and said second position absent said control signal.

48. **(Interference)** The lock of claim 46, further comprised of:

a logic circuit borne by said cylinder plug generating said control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit; and

said electrical operator moving to accommodate said movement by said bar in

6 response to said control signal.

1           49. **(Interference)** The lock of claim 46, further comprised of a locking mechanism borne  
2 by said cylinder plug, said cylinder plug being perforated by an aperture admitting reciprocal travel  
3 of a key relative to said locking mechanism, and said locking mechanism obstructing movement of  
4 said cylinder plug relative to said shell absent the key exhibiting a selected relation with said locking  
5 mechanism.

1           50. **(Interference)** (Amended) The lock of claim 46, further comprised of a plurality of  
2 electrical conductors borne by said lock to engage a circuit in a key inserted into said cylinder plug.

1           51. **(Interference)** (Amended) The lock of claim 46, further comprised of a power source  
2 energizing said electric operator to move during said second and different state of said control signal,  
3 positioned to rotate with said cylinder plug relative to said shell.

1           52. **(Interference)** The lock of claim 51, further comprised of said plug containing a keyway,  
2 and said power source being mounted on a key insertable into said keyway.

1           53. **(Allowed)** The lock of claim 46, further comprised of a network of plugs including said  
2 cylinder plug, and a switching device controlling operation of said network and said state of said  
3 control signal.

1           54. **(Interference)**( Amended) The lock of claim 46, further comprised of:

2                   said cylinder plug containing a keyway;

3                   a memory borne by said cylinder plug and storing a code; and

4                   a logic circuit comprising a memory storing a code, said circuit being borne by said  
5 cylinder plug and generating said control signal in dependence upon correspondence between said  
6 code and data borne by a key insertable within said keyway.

1           55. **(Interference)** (Amended) The lock of claim 25, further comprised of:

2                   said cylinder plug containing a keyway;

3                   a memory borne by said cylinder plug and storing a code; and

4                   a logic circuit comprising a memory storing a code, said circuit being borne by said  
5 cylinder plug and generating said control signal in dependence upon correspondence between said  
6 code and data borne by a key insertable within said keyway.

1           56. **(Interference)** (Four Times Amended) A lock, comprising:

2                   a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4                   a plug rotatable around said longitudinal axis while resident within said hollow  
5 recess;

6                   an elongate member interposed between said shell and said plug to travel generally

7 along a radial direction between a first position where said elongate member obstructs rotation  
8 between said shell and said plug by making a direct simultaneous engagement of both said shell and  
9 said plug, and in response to a torque that is externally applied to said plug and causes rotation of  
10 said plug within said shell, exiting said recess and traveling to a second position while maintaining  
11 a second simultaneous engagement of said shell and said plug that accommodates said rotation;

12 said plug comprising:

13 a first base perforated by an aperture, and a second base separated by an axial  
14 length of said plug from said first base, said second base bearing means for supporting a cam;

15 a logic circuit borne by said plug and rotatable with said plug, conveying said  
16 data signal between said aperture to said logic circuit; and

17 an electrical operator responding to said control signals by moving  
18 independently of said travel by said elongate member in a second direction within a plane  
19 that maintains said simultaneous engagement by not aligned with said radial direction  
20 between one of a first orientation obstructing said travel and relative operable movement  
21 between said shell and said plug while said electrical operator is contained wholly within  
22 said plug, and a second and different orientation accommodating said travel and said relative  
23 operable movement between said shell and said plug, and another of said first orientation and  
24 said second orientation.

1 57. (Cancelled) The lock of claim 16, further comprising said distal member bearing a mass  
2 engaging said detent and blocking said rotation while said distal member is in said first position, and

3 a groove through said mass accommodating relative passage between said distal member relative to  
4 said detent while said distal member is in said second position.

1 58. (Cancelled) The lock of claim 16, further comprising said distal member bearing a mass  
2 exhibiting a first height accommodating relative passage between said distal member relative to said  
3 detent while said distal member is in said second position, and a second and greater height engaging  
4 and blocking said rotation while said distal member is in said first position.

1 59. (Cancelled) The lock of claim 16, further comprising said distal member bearing a mass  
2 having a periphery engaging said detent and blocking said rotation while said distal member is in  
3 said first position, and a central variation in said mass relative to said periphery accommodating  
4 relative passage between said distal member and said detent while said distal member is in said  
5 second position.

1 64. **(Interference)** (Twice Amended) A lock, comprising:  
2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;  
4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, said cylinder plug comprising a first base and a second base separated by an axial  
6 length of said cylinder plug from said first base, said second base bearing means for supporting a  
7 cam;

a sidebar interposed between said shell and said cylinder plug to travel generally along a radial plane between a first position engaging both said shell and said plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

a logic circuit generating an electrical control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit;

an electrical conductor provided by said plug, conveying said data signal to said logic circuit; and

an electrical operator borne by said cylinder plug and rotatable with said plug, said electrical operator being electrically operable to respond to said control signal by moving in a different plane independently of said travel by said sidebar, between one of a first orientation providing obstruction of said travel and a second and different orientation accommodating said travel, and another of said first orientation and said second orientation;

said sidebar having a first portion that is positioned to be optionally blocked by another component of said lock functioning independently of said electrical operator to prevent said travel of said sidebar, and a second portion that is positioned to be blocked from said travel by said sidebar to said second position whenever said electrical operator is within said first orientation, and a second portion that is positioned to be optionally blocked by another component of said lock.

65. **(Allowed)**(Amended) A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, said cylinder plug comprising a first base and a second base separated by an axial  
6 length of said cylinder plug from said first base, said second base bearing means for supporting a  
7 cam;

8 a bar interposed between said shell and said cylinder plug to travel generally along  
9 a radial plane between a first position engaging both said shell and said plug while obstructing  
10 rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

11 a logic circuit generating a control signal in response to a comparison between a code  
12 set within said logic circuit and a data signal applied to said logic circuit;

13 an electrical conductor provided by said plug, conveying said data signal to said logic  
14 circuit; and

15 an electrical operator comprising an armature, said armature being borne by said  
16 cylinder plug and rotating around said longitudinal axis with said plug, said electrical operator being  
17 electrically operable to respond to said control signal by moving independently of said travel,  
18 between one of a first orientation providing obstruction of said travel and a second and different  
19 orientation accommodating said travel, and another of said first orientation and said second  
20 orientation.

1 **66.(Allowed)** The lock of claim 65, with said electrical operator further comprising a coil  
2 of an electrically conducting material that is borne by said cylinder plug and wound to drive said  
3 armature to move from one of said first and second orientations to the other of said first and second

orientations in response to said control signal.

67. **(Allowed)** The lock of claim 65, with said electrical operator further comprising a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to move from said first orientation to said second orientation in response to said control signal.

68. **(Allowed)** The lock of claim 65, with electrical operator further comprising a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to rotate around an arc in response to said control signal.

69. **(Allowed)** The lock of claim 65, with said electrical operator further comprising a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to reciprocate along a radial axis that is transverse to said radial plane in response to said control signal.

70. **(Interference)** (Amended) A lock, comprising:  
a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;  
a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess, said cylinder plug comprising a first base and a second base separated by an axial

length of said cylinder plug from said first base, said second base bearing means for supporting a cam;

a bar interposed between said shell and said cylinder plug to travel generally along a radial plane between a first position engaging both said shell and said plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

a logical circuit generating said control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit;

an electrical conductor provided by said plug, conveying said data signal to said logic circuit; and

an electrical operator borne by said cylinder plug and rotatable with said plug, said electrical operator being electrically operable to respond to an electrical control signal applied to said electrical operator by moving along a geometrical construct other than to said radial plane between one of a first orientation providing obstruction of said travel and a second and different orientation accommodating said travel, and another of said first orientation and said second orientation.

71. **(Allowed)** The lock of claim 70, with said electrical operator further comprising an armature and a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to move along said geometric construct in response to said control signal.

72. **(Allowed)** The lock of claim 70, with said electrical operator further comprising an

armature and a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to move along said geometric construct in response to said control signal from said second orientation to said first orientation.

73. **(Non-elected)** The lock of claim 70, with said geometric construct comprising an arc and said electrical operator further comprising an armature and a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to rotate around said arc in response to said control signal.

74. **(Allowed)** The lock of claim 70, with said geometric construct comprising a radial axis that is transverse to said radial plane, and said electrical operator further comprising an armature and a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to reciprocate along said radial axis in response to said control signal.

75. **(Allowed)** A lock, comprising:  
a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;  
a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess, said cylinder plug comprising a first base and a second base separated by an axial length of said cylinder plug from said first base, said second base bearing means for supporting a cam;

8 a bar interposed between said shell and said cylinder plug to travel generally along  
9 a radial plane between a first position engaging both said shell and said plug while obstructing  
10 rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

11 a logic circuit generating said control signal in response to a comparison between a  
12 code set within said logic circuit and a data signal applied to said logic circuit;

13 an electrical conductor provided by said plug, conveying said data signal to said logic  
14 circuit; and

15 an electrical operator borne by said cylinder plug and rotatable with said plug, said  
16 electrical operator being electrically operable to respond to said control signal by moving along a  
17 radial axis that is transverse to said radial plane, between a first orientation providing obstruction of  
18 said travel and a second and different orientation accommodating said travel.

1 **76. (Interference)** (Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, said cylinder plug comprising a first base and a second base separated by an axial  
6 length of said cylinder plug from said first base, said second base bearing means for supporting a  
7 cam;

8 a logic circuit generating said control signal in response to a comparison between a  
9 code set within said logic circuit and a data signal applied to said logic circuit;

an electrical conductor provided by said plug, conveying said data signal to said logic circuit;

an elongate bar exhibiting a greatest longitudinal dimension along a second axis that extends transversely to said first base and to said second base, said bar being interposed between said shell and said cylinder plug to travel generally along a radial axis that is transverse to said second axis, between a first position engaging both said shell and said plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation; and

an electrical operator borne by said cylinder plug and rotatable with said plug, said electrical operator being electrically operable to respond to said control signal by moving along said radial axis between one of a first orientation providing obstruction of said travel and a second and different orientation accommodating said travel, and another of said first orientation and said second orientation.

**77. (Interference) (Amended)** A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess, said cylinder plug comprising a first base and a second base separated by an axial length of said cylinder plug from said first base, said second base bearing means for supporting a cam;

a logic circuit generating said control signal in response to a comparison between a

9 code set within said logic circuit and a data signal applied to said logic circuit;

10 an electrical conductor provided by said plug, conveying said data signal to said logic  
11 circuit;

12 an elongate bar exhibiting a greatest longitudinal dimension along a second axis that  
13 extends transversely to said first base and to said second base, said bar being interposed between said  
14 shell and said cylinder plug to travel generally along a radial axis that is radial to said cylinder plug  
15 and transverse to said second axis, between a first position engaging both said shell and said plug  
16 while obstructing rotation of said cylinder plug within said recess, and a second position  
17 accommodating said rotation; and

18 an electrical operator borne by said cylinder plug and rotatable with said plug, said  
19 electrical operator being electrically operable to respond to a control signal by moving between one  
20 of a first orientation providing obstruction of said travel and a second and different orientation  
21 accommodating said travel, and another of said first orientation and said second orientation.

1 78. **(Allowed)** The lock of claim 25, with said electrical operator further comprising an  
2 armature and a coil of an electrically conducting material that is borne by said cylinder plug and  
3 wound to drive said armature to move from one of said first and second orientations to the other of  
4 said first and second orientations in response to said control signal.

1 79. **(Allowed)** The lock of claim 25, with said electrical operator further comprising an  
2 armature and a coil of an electrically conducting material that is borne by said cylinder plug and

3 wound to drive said armature to move from said first orientation to said second orientation in  
4 response to said control signal.

1 80. **(Allowed)** The lock of claim 25, with electrical operator further comprising an armature  
2 and a coil of an electrically conducting material that is borne by said cylinder plug and wound to  
3 drive said armature to rotate around an arc in response to said control signal.

1 81. **(Allowed)** The lock of claim 25, with said electrical operator further comprising an  
2 armature and a coil of an electrically conducting material that is borne by said cylinder plug and  
3 wound to drive said armature to reciprocate along a radial axis that is transverse to said radial plane  
in response to said control signal.

1 82. **(Interference)** The lock of claim 25, further comprised of a component biasing said bar  
2 to maintain said first position engaging both said shell and said plug.

1 83. **(Allowed)** The lock of claim 25, further comprised of a component biasing said electrical  
2 operator to maintain said second orientation providing obstruction of said bar.

1 84. **(Allowed)** The lock of claim 25, further comprised of:  
2 a first component biasing said bar to maintain said first position engaging both said shell and  
3 said plug; and

4 a second component biasing said electrical operator to maintain said second orientation  
5 providing obstruction of said bar.

1 85. **(Interference)** (Twice Amended) An electromechanical lock cylinder, comprising:  
2 an outer shell having a bore formed therein and a cavity extending from the bore into  
3 the shell;  
4 a barrel disposed within the bore in the shell and being rotatable relative thereto;  
5 a side bar cooperating between the shell and the barrel for selectively permitting and  
6 blocking rotation of the barrel with respect to the shell, the side bar having a first portion engaging  
7 the barrel and a second portion removably received in the cavity in the shell, the side bar being  
8 movable relative to the barrel;  
9 wherein at least one electromechanical locking member is disposed within the barrel  
10 and is positionable in a barrel blocking position blocking rotation of the barrel with respect to the  
11 shell, and also is positionable in a non-barrel blocking position permitting the side bar to be moved  
12 relative to the cavity in the shell to rotate the barrel with respect to the shell;  
13 an electronically powered drive mechanism located within the barrel and cooperating  
14 with the electromechanical locking member to selectively move the locking member from the barrel  
15 blocking position to the non-barrel blocking position in which the side bar moves out of the cavity  
16 and engages the locking member; and  
17 control means for activating the electronically powered drive mechanism in response  
18 to an authorized attempt to operate the lock cylinder.

1           86. **(Allowed)** The lock cylinder of claim 85, further comprised of:

2           said drive mechanism comprising an electrical coil moving said locking member to  
3           reciprocate said locking member between said non-barrel blocking position and said barrel blocking  
4           position in response to activation by said control means; and

5           said locking member bearing a circumferential surface blocking movement of said side bar  
6           while said locking member is in said barrel blocking position, and accommodating said radial  
7           movement while said distal member is in said non-barrel blocking position.

1           87. **(Allowed)** The lock cylinder of claim 85, further comprised of:

2           said drive mechanism comprising an electrical coil moving said locking member to rotate  
3           said locking member between said non-barrel blocking position and said barrel blocking position  
4           in response to activation by said control means; and

5           said locking member bearing an external feature blocking movement of said side bar while  
6           said locking member is in said barrel blocking position, and accommodating said radial movement  
7           while said distal member is in said non-barrel blocking position.

1           88. **(Interference)** A lock cylinder according to claim 85, wherein the first portion of the side  
2           bar is an outer edge and the second portion is an opposite inner edge, and when the at least one  
3           locking member is in said barrel blocking position the outer edge of the side bar is received in the  
4           cavity formed in the shell, and wherein the at least one locking member has a groove which receives

5 the inner edge of the side bar when the at least one locking member is in said non-barrel blocking  
6 position.

1       **89. (Interference) (Twice Amended)** A rotatable lock barrel for insertion into a lock  
2 cylinder having a bore formed therein, the barrel comprising:

3       an elongated, generally cylindrically shaped barrel member having an exterior configured for  
4 receipt in a bore of a lock cylinder and an interior containing an electromechanical locking member,  
5 the barrel member having a recess formed therein;

6       wherein the locking member is disposed in the recess of the barrel member and is  
7 substantially entirely contained within the barrel member, the locking member including a groove  
8 and the locking member being movable to a position in which the groove of the locking member is  
9 placed in an alignment;

10       the recess in said barrel member being configured to receive at least a portion of a movable  
11 side bar of a lock cylinder to permit the side bar to move into and out of engagement with the groove  
12 of the locking member for selectively permitting and blocking rotation of the barrel member with  
13 respect to a lock cylinder when positioned therein;

14       an electronically powered drive mechanism located within the barrel member for moving the  
15 electromechanical locking member to a position in which the groove of the locking member is in  
16 said alignment.

1       **90. (Interference) (Non-elected)** A process of retrofitting a mechanical cylinder lock to form

an electromechanical cylinder lock, the process comprising steps of:

providing a mechanical cylinder lock including an outer shell with a bore, a first rotatable barrel located in the bore, and a side bar for preventing and permitting rotation of the barrel within the bore in the shell;

removing the first barrel from the shell;

providing an electronically powered rotatable barrel having an exterior adapted to substantially correspond to the bore in the shell, and including:

at least one electromechanical locking member disposed in the barrel, the electromechanical locking member being positionable to permit the side bar to engage the locking member in a non-barrel blocking position which permits the barrel to rotate with respect to the shell, and the electromechanical locking member also being positionable in a barrel blocking position which blocks rotation of the barrel with respect to the shell; and

an electronically powered drive mechanism cooperating with the electromechanical locking member to selectively move the locking member from the barrel blocking position to the non-barrel blocking position in which the side bar engages the locking member to rotate the barrel and operate the lock; and

securing the electronically powered rotatable barrel in the bore in the shell to form an electromechanical cylinder lock, the lock including control means carried by at least one of the barrel and bore for energizing the electronically powered drive mechanism in response to an authorized attempt to open the lock.

1           91. **(Interference)** (Amended) A lock, comprising:

2           a shell containing a hollow recess defining a longitudinal axis and an interior  
3           cylindrical surface;

4           a cylinder plug rotatable around said longitudinal axis while resident within said  
5           hollow recess, said cylinder plug comprising a first base perforated by a keyway and a second base  
6           separated by an axial length of said cylinder plug from said first base, said second base disposed to  
7           support a cam;

8           a bar interposed between said shell and said cylinder plug to reciprocate generally  
9           along a radial plane between a first position engaging both said shell and said plug while obstructing  
10          rotation of said cylinder plug within said recess, and a second position accommodating said rotation  
11          when a torque is externally applied to said keyway to rotate said cylinder plug within said shell;

12          a locking mechanism borne by and rotating with said cylinder plug, said locking  
13          mechanism being interposed between said cylinder plug and said bar, and exhibiting a first  
14          disposition hindering said reciprocation and, in response to insertion of a key in physical  
15          conformance to said locking mechanism, exhibiting a second and different disposition  
16          accommodating said reciprocation; and

17          an electrical operator borne by said cylinder plug and rotatable with said cylinder  
18          plug, said electrical operator being electrically operable to respond to a control signal by moving  
19          independently of said bar between a first orientation providing obstruction of said reciprocation by  
20          said bar and a second and different orientation removing said obstruction.

1           92. **(Allowed)** A lock, comprising:

2                   a shell containing a hollow recess defining a longitudinal axis and an interior  
3           cylindrical surface;

4                   a cylinder plug rotatable around said longitudinal axis while resident within said  
5           hollow recess;

6                   a bar interposed between said shell and said cylinder plug to extend generally along  
7           a radial plane between a first state engaging both said shell and said plug while obstructing rotation  
8           of said cylinder plug within said recess, and a second state accommodating said rotation;

9           said cylinder plug comprising:

10                   a first base and a second base separated by an axial length of said cylinder plug from  
11           said first base, said second base configured to support a cam; and

12                   an electrical operator comprising an armature borne by said cylinder plug and  
13           rotatable with said cylinder plug, said electrical operator being electrically operable to  
14           respond to a control signal by moving said armature independently of said bar, between one  
15           of a first orientation providing obstruction of said rotation during said first state and a second  
16           orientation accommodating independent relative movement between said bar and said  
17           cylinder plug, and another of said first orientation and said second orientation.

1           93. **(Allowed)** The lock of claim 92, further comprised of:

2                   a coil wound to provide conduction of an electrical current in response to said control  
3           signal; and

4           said armature comprising an exterior surface exhibiting a rest position between said  
5 shell and said cylinder plug, said armature obstructing said rotation absent said conduction,  
6 accommodating said rotation during said conduction, and accommodating said rotation until said  
7 rotation returns said armature to said rest position after termination of said conduction.

1           94. **(Non-elected)** The lock of claim 92, further comprised of:

2           a coil wound to provide conduction of an electrical current in response to said control  
3 signal; and

4           said armature comprising an exterior surface exhibiting a rest position with said  
5 exterior surface extending between said shell and said cylinder plug while said cylinder plug is in  
6 alignment with said shell in a locked condition, said armature obstructing said rotation absent said  
7 conduction, accommodating said rotation during said conduction by withdrawing from said shell and  
8 wholly into said cylinder plug, accommodating said rotation until said rotation returns said armature  
9 to said rest position after termination of said conduction, and resuming said rest position when said  
10 rotation restores said alignment.

1           95. **(Allowed)** The lock of claim 92, further comprised of:

2           a coil wound to provide conduction of an electrical current in response to said control  
3 signal; and

4           said armature comprising an exterior surface exhibiting a rest position between said  
5 bar and said cylinder plug, said armature obstructing said rotation absent said conduction, said

armature accommodating said rotation during said conduction, and said armature accommodating said rotation until said rotation returns said armature to said rest position after termination of said conduction.

96. **(Allowed)** The lock of claim 92, further comprised of:

a coil wound to provide conduction of an electrical current in response to said control signal; and

said armature comprising an exterior surface exhibiting a rest position with said first orientation while said exterior surface is interposed between said bar and said cylinder plug and obstructs said rotation absent said conduction, said armature assuming said second orientation, withdrawing from said interposition and accommodating said rotation during said conduction, and said armature accommodating said rotation until said rotation returns said armature to said rest position with said first orientation after termination of said conduction.

97. **(Allowed)** The lock of claim 92, further comprised of:

a coil wound to provide conduction of an electrical current in response to said control signal; and

said armature comprising an exterior surface exhibiting a rest position with said first orientation while said exterior surface is interposed between said bar and said cylinder plug and obstructs said rotation absent said conduction, said armature assuming said second orientation, withdrawing from said interposition and accommodating said rotation during said conduction, and

8 said armature maintaining said second orientation and accommodating said rotation after said  
9 rotation returns said armature to said rest position after termination of said conduction.

1 98. **(Non-elected)** The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to said control  
3 signal; and

4 said armature comprising an exterior surface exhibiting a rest position with said first  
5 orientation while said exterior surface is interposed between said bar and said cylinder plug and  
6 obstructs said rotation absent said conduction, said armature assuming said second orientation,  
7 withdrawing from said interposition and accommodating said rotation during said conduction, said  
8 armature maintaining said second orientation and accommodating said rotation after said rotation  
9 returns said armature to said rest position after termination of said conduction, and said armature  
10 resuming said first orientation during renewal of said conduction subsequent to said termination.

1 99. **(Allowed)** The lock of claim 92, further comprised of:

2 a coil wound to provide conduction of an electrical current in response to said control  
3 signal; and

4 said armature comprising an exterior surface exhibiting a rest position while in said  
5 first orientation absent said conduction with a first thickness of said exterior surface interposed  
6 between said bar and said cylinder plug and with said cylinder plug in alignment with said shell in  
7 a locked position, said armature exhibiting said second orientation and accommodating said rotation

8 during said conduction with a second and lesser thickness of said exterior surface permitting  
9 movement of said bar relative to said cylinder plug, and said armature accommodating said rotation  
10 until said rotation allows said bar to reverse said relative movement and said armature to return to  
11 said rest position after termination of said conduction.

1 100. **(Allowed)** The lock of claim 92, further comprised of:

2 a logic circuit borne by said cylinder plug, generating said control signal in response  
3 to a comparison between a code set within said logic circuit and a data signal applied to said logic  
4 circuit; and

5 said electrical operator moving between said second orientation and said first  
6 orientation in response to said control signal.

1 101. **(Allowed)**(Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, said cylinder plug comprising:

6 a first base and a second base separated by a mass and an axial length of said cylinder  
7 plug from said first base, said second base being configured to support a cam, said mass  
8 comprising a main body exhibiting a major exterior circumferential surface and a cylindrical  
9 sector exhibiting a lesser and minor exterior circumferential surface supplementing said main

body to endow said cylinder plug with a substantially cylindrical exterior shape that is removably insertable within said hollow recess;

an electrical operator encased within said cylindrical sector and rotatable with said cylinder plug, said electrical operator being electrically operable to respond to a control signal by moving between one of a first orientation obstructing rotation of said cylinder plug relative to said shell and a second and different orientation accommodating said rotation, and another of said first orientation and said second orientation; and

a logic circuit encased within said cylindrical sector generating said control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit.

102. **(Allowed)** A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess, said cylinder plug comprising:

a first base and a second base separated by a mass and an axial length of said cylinder plug from said first base, said second base bearing means for supporting a cam, said mass comprising a main body exhibiting a major exterior circumferential surface and a cylindrical sector forming a module exhibiting a lesser and minor exterior circumferential surface supplementing said main body to endow said cylinder plug with a substantially cylindrical

11 exterior shape that is removably insertable within said hollow recess; and

12 an electrical operator encased within and borne by said axial cylindrical sector, and  
13 rotatable with said cylinder plug, said electrical operator being electrically operable to  
14 respond to a control signal by moving between one of a first orientation causing obstruction  
15 of rotation of said cylinder plug within said shell and a second orientation accommodating  
16 said rotation, and another of said first orientation and said second orientation;

17 a bar interposed between said shell and said cylinder plug, spaced-apart from said  
18 electrical operator and movable independently of said electrical operator between a first position  
19 obstructing said rotation and a second and different position accommodating said rotation.

1 103. **(Allowed)** The lock cylinder of claim 85, further comprising:

2 said side bar comprises a major elongate surface that defines a plane extending  
3 approximately radially relative to said barrel; and

4 said locking member moving on an axis that is approximately perpendicular to said  
5 plane.

1 104. **(Allowed)** The lock cylinder of claim 89, further comprising:

2 a side bar that travels along a plane that extends approximately radially relative to said  
3 barrel; and

4 said locking member moving on an axis that is approximately perpendicular to said  
5 plane.

1           105. **(Interference)** The process of claim 90, further comprising:

2                   orienting said side bar to travel along a plane that extends approximately radially  
3           relative to said electronically powered rotatable barrel when engaging said locking member; and  
4                   positioning said locking member to move on an axis that is approximately  
5           perpendicular to said plane when said locking member is selectively moved from said barrel  
6           blocking position to said non-barrel blocking position.

1           106. **(Allowed)** The lock of claim 14, further comprising said bar engaging both said shell  
2           and said plug during said movement between said plug and said cylinder.

1           107. **(Interference)** The lock of claim 25, further comprising said bar engaging both said  
2           shell and said cylinder plug during said rotation.

1           108. **(Interference)** The lock of claim 46, further comprising said bar engaging both said  
2           shell and said cylinder plug during said rotation.

1           109. **(Interference)** The lock of claim 64, further comprising said sidebar engaging both said  
2           shell and said cylinder plug during said rotation.

1           110. **(Allowed)** The lock of claim 65, further comprising said bar engaging both said shell  
2           and said cylinder plug during said rotation.

1           111. **(Interference)** The lock of claim 70, further comprising said bar engaging both said  
2           shell and said cylinder plug during said rotation.

1           112. **(Allowed)** The lock of claim 75, further comprising said bar engaging both said shell  
2           and said cylinder plug during said rotation.

1           113. **(Interference)** The lock of claim 76, further comprising said bar engaging both said  
2           shell and said cylinder plug during said rotation.

1           114. **(Interference)** The lock of claim 77, further comprising said bar engaging both said  
2           shell and said cylinder plug during said rotation.

1           115. **(Interference)** The lock of claim 85, further comprising said side bar engaging both said  
2           shell and said barrel during said rotation.

1           116. **(Interference)** The lock of claim 91, further comprising said bar engaging both said  
2           shell and said cylinder plug during said rotation.

117. (Cancelled) The lock of claim 92, further comprising said bar engaging both said shell  
and said cylinder plug during said rotation.

118. (Cancelled) A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior  
cylindrical surface bearing a slot;

a cylinder plug rotatable around said longitudinal axis while resident within said  
hollow recess;

a bar borne by said cylinder plug, said bar having a distal edge extending in a radial  
direction to said longitudinal axis, and into said slot to form a simultaneous engagement of said shell  
and said cylinder plug while said lock is in a locked state, and said distal edge maintaining a  
simultaneous engagement of said shell and said cylinder plug after a torque that is externally applied  
to said cylinder plug causes rotation of said cylinder plug within said shell;

said cylinder plug comprising:

a first base and a second base separated by an axial length of said cylinder  
plug from said first base, said second base being configured to support a cam;

an electronic logic circuit comprising a memory storing a code, said circuit  
generating control signals in dependence upon a comparison between said code and  
information borne by a data signal received by said cylinder plug from an external source;  
and

an electrical operator borne by said cylinder plug and rotatable with said

19 cylinder plug, said electrical operator comprising an electrical coil and a movable member  
20 traveling in response to said coil, independently of said bar and in dependence upon said  
21 control signals, between a first position relative to said exterior surface maintaining said  
22 simultaneous engagement by blocking movement by said bar, and a second and different  
23 position relative to said exterior surface accommodating movement between said shell and  
24 said cylinder plug.

1 119. **(Interference)** The lock cylinder of claim 85, in which said side bar moves out of the  
2 cavity and engages the locking member to rotate the barrel and operate the lock.

1 120. **(Interference)** A rotatable lock barrel for insertion into a lock cylinder having a bore  
2 formed therein, the barrel comprising:

3 an elongated, generally cylindrically shaped barrel member having an exterior configured for  
4 receipt in a bore of a lock cylinder and an interior containing a plurality of electromechanical locking  
5 members, the barrel member having a recess formed therein;

6 wherein the locking members are disposed in the recess of the barrel member and are  
7 substantially entirely contained within the barrel member, each of the locking members including  
8 a groove and the locking members being movable to a position in which the grooves of the locking  
9 members are aligned;

10 the recess in said barrel member being configured to receive at least a portion of a movable  
11 side bar of a lock cylinder to permit the side bar to move into and out of engagement with the

12 grooves of the locking members for selectively permitting and blocking rotation of the barrel  
13 member with respect to a lock cylinder when positioned therein;

14 an electronically powered drive mechanism located within the barrel member for moving the  
15 electromechanical locking members to a position in which the grooves of the locking members are  
16 aligned.

R13 --121. (New) A lock, comprising:

3 a shell containing a hollow recess defining a longitudinal axis and an interior  
cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess;

6 a bar interposed between said shell and said cylinder plug detent extending radially  
7 from a second recess within said shell into a passage within said cylinder plug to create an  
8 obstruction to rotation of said cylinder plug within said hollow recess;

9 said cylinder plug comprising:

10 a first base and a second base separated by an axial length of said cylinder plug from  
11 said first base, said second base configured to support a cam; and

12 an electrical operator borne by said cylinder plug and rotatable with said cylinder  
13 plug, said electrical operator being electrically operable to respond to a control signal by  
14 moving independently of said ~~bar-shell~~ detent between one of a first orientation  
15 accommodating relative movement between said ~~bar~~ detent and said cylinder plug and a

16 *RB* second and different orientation ~~providing~~ maintaining obstruction of said ~~bar~~ relative  
17 movement by engaging said detent, and another of said first orientation and said second  
18 orientation.

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